

**Savannah River Site  
Citizens Advisory Board**

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**Recommendation #299**

**Separation of National Nuclear Waste Programs (Defense Nuclear Waste and  
Commercial Power Nuclear Waste)**

**Background**

The Defense Programs (and SRS) Waste Disposition Program, relative to high level nuclear waste, is at this point uncertain. The SRS canisters consisting of waste from the Defense Waste Processing Facility (DWPF) are presently in storage awaiting shipment to a federal repository.

Federal planning on further actions relative to disposition, for both the SRS waste canisters and similar waste from other sites, is awaiting a path forward to be developed primarily from a report issued by the Blue Ribbon Committee on America's Nuclear Future in January 2012. Definitive plans by DOE, NRC, EPA, and perhaps others, are likely to be developed in the 2013 timeframe. All estimates seem to indicate that actual disposition could take many decades (some estimate on the order of 50 years).

As discussed in the report, the general approach seems to be development of interim storage facilities for consolidation of commercial SNF followed by, but in conjunction with interim storage, expedited work on a final disposition repository. As noted earlier, this process is expected to take a very long time.

There is, however, one distinct measure that could serve to expedite this process somewhat. That is to separate the Defense Programs (DP) nuclear waste program and the much larger commercial nuclear waste program. This affords the national leaders an opportunity to conduct a disposition program on a smaller, more mature program, and use the experience gained to assist in development of the disposition program for the larger commercial nuclear waste.

**Discussion**

As noted above, much of the Defense Programs waste program is much more mature than the waste program for the commercial nuclear waste. For example, SRS has more than 3,500 canisters awaiting shipment to a federal repository, the next step in the disposition process. Every opportunity should be taken to use these canisters in the waste disposition learning process. Consider the following:

- Defense waste is considerably smaller than commercial waste in quantity. Defense waste volume is approximately 10 percent of the commercial waste volume.
- Defense waste (particularly the waste canisters) is well-prepared for ready disposition relative to the outer container (durable stainless steel cylinder), the waste form is stable (borosilicate glass), and the constituents are well-known and understood. (Meets all known specifications).
- Since the Defense waste seems to be in an advanced state of preparation for disposition, many of the lingering technical questions for commercial fuel do not apply to much of the Defense waste.

These circumstances suggest the real advantage of separating the DP Wastes from Commercial nuclear power waste is to learn from activities relative to the smaller, more mature DP waste and use the information gained to assist in development of a much larger, less mature program.

As noted many times in the report, there are numerous examples pointed out where considerable research and development will be needed to address a plethora of issues related to storage, shipping, potential

reuse, preparation for disposition, and disposition. Further, much could be learned from dealing with “consent-based” approval issues.

It is understood by the CAB that such a move will involve considerable interaction with a number of other federal levels; however, this opportunity should be explored and discussed at the highest levels.

Such a program may create some opposition at the local and state levels. Some states may view this as a step forward while other states may view it as a measure that reduces the focus on dealing with the large waste program. If this action is represented as one that is taking positive measures for progress, while the larger program is being actively addressed, it may be broadly embraced.

### **Recommendations:**

The Savannah River Site Citizens Advisory Board recommends that DOE:

1. DOE-SR present the concept of separating the Defense Programs program high level waste program from the commercial nuclear power waste program to HQ, and heartily endorse such an approach.
2. DOE-SR develop a “white paper” on this topic presenting more in-depth support and data for the concept and forward the “white paper” in support of this concept.

Recommendation #299  
Adopted October 30, 2012  
Sponsored by the Waste Management Committee